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| 10/582,238 | 06/09/2006 | Daisuke Kanenari | 21713-00031-US1 | 1668 |

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| EXAMINER |
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BUIE, NICOLE M

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1796

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08/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/582,238 | Applicant(s) KANENARI ET AL. | |
| | Examiner NICOLE M. BUIE | Art Unit 1796 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 7, 14, 22 and 27-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-13, 15-21 and 23-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-39 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20060609/20070223/20070504</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-6, 8-13, 15-21 and 23-26, drawn to method for producing polymer composition.

Group II, claim(s) 7, 14, 22, and 27, drawn to a polymer composition.

Group II, claim(s) 28 and 29, drawn to an apparatus.

The inventions listed as Groups I, II, and III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: while the polymer composition is shown between all three groups, it doesn't offer contribution over the prior art, because said polymer composition is disclosed in Takana et al. (EP 1306424 A1) [0092]-[0094].

During a telephone conversation with Attorney Burton A. Amernick (Reg # 24,852) on 07/17/2008 a provisional election was made without traverse to prosecute the invention of **Group I, claims 1-6, 8-13, 15-21, and 23-26**. Affirmation of this election must be made by applicant in replying to this Office action. **Claims 7, 14, 22, 27, 28, and 29** are withdrawn from

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further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained.

Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be

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amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

Information Disclosure Statement

The information disclosure statement filed 06/09/2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the foreign document JP-11292978 has not been considered since no copy has been provided. The Patent Abstract of Japan was the only document provided.

Claim Objections

Claims 8-14 are objected to because of the following informalities: the parentheses around the phrase “solid content” makes it unclear whether the phrase “solid content” is required by said claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Takana et al. (EP 1306424 A1) as evidenced by Piskoti (US 4,092,279).

Regarding claims 1 and 4, Takana et al. discloses a method for producing a polymer composition containing a filler comprising simultaneously spraying and drying a liquid containing a polymer component (“acrylic polymer”) and a liquid (“preparation liquid”) containing a filler (“sodium carbonate” and “sodium sulfate”) under an atmosphere of a shock wave generated from pulse combustion ([0092]-[0094]). Acrylic polymer is rubber latex as evidenced by Piskoti (C2/L14-26).

Regarding claim 2, Takana et al. discloses a method for producing a polymer composition further comprising mixing the filler or filler-containing liquid, before spraying, and then spraying it under an atmosphere of a shock wave generated from pulse combustion ([0093],[0096]).

Regarding claim 3, Tanaka discloses a method for producing a polymer composition wherein the filler is at least one filler such as silica and clay ([0084],[0087]).

Regarding claim 5, Tanaka discloses a method for producing a polymer composition wherein the polymer composition mixture before drying has a viscosity at 2000 m Pa·s (as compared to 25°C of 3000 mPa·s or less as required by said claim) [0150].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takana et al. (EP 1306424 A1) as applied to claim 1 above in view of Chandran et al. (US 5,842,289).

Regarding claim 6, Takana et al. discloses the method as shown above in claim 1. Tanaka et al. further discloses the high-temperature gas can be exhausted at 100°C from the top of the spray-drying tower [0206].

However, Tanaka et al. does not disclose a method wherein a frequency of the pulse combustion is 50 to 1200 Hz. Chandran et al. teaches a frequency in a range of from about 50 Hz to about 500 Hz (C3/L12-19). Tanaka et al. and Chandran et al. are analogous art concerned with the same field of endeavor, namely drying slurries with pulse combustor comprising

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polymers containing fillers. It would have been obvious to one of ordinary skill in the art at the time of invention to use the temperature of Chandran et al. in the method of Tanaka et al., and the motivation to do so would have been as Chandran et al. suggests, to create a pulsating velocity flow field in the heating process for drying (C3/L66-C4/L6).

Claim 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeffs (US 5028482) in view of Chandran et al. (US 5,842,289) as evidenced by Takana et al. (EP 1306424 A1).

Regarding claim 8, Jeffs discloses a method for producing a natural rubber/carbon black master batch comprising mixing, into a natural rubber latex (Abstract, C5/L17-21), an aqueous slurry of carbon black containing 5% to 25% by weight of carbon black (as compared to 1 to 200 parts by weight as required by said claim (C5/L5-8) and 0.1% to 5% by weight of a surfactant based on the weight of carbon black (as compared to 1 to 30 wt% as required by said claim) (C5/L27-37), then spraying and drying the mixture (C5/L22-26). Jeffs further discloses the inlet temperature of the spray dryer is less than 350°C (C6/L23-27) (as compared to 140°C or less as required by said claim).

However, Jeffs does not disclose spraying and drying the mixture thus obtained under an atmosphere of a shock wave generated from pulse combustion. Chandran et al teaches drying the slurry using a pulse combustion device (Abstract, C2/L31-33). Jeffs and Chandran et al. are analogous art concerned with the same field of endeavor, namely spray-drying rubber latexes containing fillers. It would have been obvious to one of ordinary skill in the art at the time of invention to use the pulse-shock wave dryer of Chandran in the method of Jeffs, and the

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motivation to do so would have been to accelerate the drying speed of the droplets as evidenced by Takana et al. [0094] .

Regarding claim 9, Jeffs discloses a method for producing a master batch wherein the surfactant is mixed, in advance with at least one of natural rubber latex and aqueous slurry of carbon black, followed by agitating and mixing the natural rubber latex and the carbon black slurry (C5/L5-21).

Regarding claim 10, Jeffs discloses a method wherein the surfactant is a nonionic surfactants (i.e. a copolymer of acrylonitrile or methacrylonitrile monomer units) (C5/L27-37).

Regarding claim 11, Jeffs does not disclose a method wherein a viscosity at 25°C of the mixture before drying is 3000 mPa·s or less. As the handleability during production is variable that can be modified by adjusting said viscosity as evidenced by Takana et al. [150], the precise viscosity would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, viscosity ,and the motivation to do so would have been to obtain desired handleability during production (*In re Boesch*, 617 F .2d. 272,205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). See MPEP 2144.05.

Regarding claim 12, Jeffs discloses the inlet temperature of the spray dryer is less than 350°C (C6/L23-27) (as compared to 140°C or less as required by said claim).

However, Jeffs does not disclose a method wherein a frequency of the pulse combustion is 50 to 1200 Hz. Additionally, Chandran et al. teaches a frequency in a range of from about 50 Hz to about 500 Hz (C3/L12-19). It would have been obvious to one of ordinary skill in the art at the time of invention to use the frequency of Chandran et al., in the method of Takana et al., and the motivation to do so would have been as Chandran et al. suggests, to use a frequency in the said range to create a pulsating velocity flow field in the heating process for improving drying (C3/L66-C4/L6).

However, Jeffs does not disclose the temperature of a drying chamber is 140°C or less. As the degradation of the elastomer material is variable that can be modified by adjusting said temperature as evidenced by Jeffs (C6/L23-27), the precise temperature would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, temperature, and the motivation to do so would have been to obtain desired stability of the elastomer (*In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). See MPEP 2144.05.

Regarding claim 13, Jeffs discloses a method wherein the mixture further contains metal oxides (i.e. "silica", "titanium dioxide", "silicates of aluminum and calcium") (C4/L22-51).

Claim 15, 16, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeffs (US 5028482) in view of Chandran et al. (US 5,842,289) as evidenced by Takana et al. (EP 1306424 A1).

Regarding claim 15, Jeffs discloses a method for producing a natural rubber/carbon black master batch comprising mixing, into a natural rubber latex (Abstract, C5/L17-21), an aqueous slurry of carbon black (C5/L5-8) and a water soluble polymer (C5/L27-37) and then spraying and drying the mixture (C6/L23-27).

However, Jeffs does not disclose spraying and drying the mixture thus obtained under an atmosphere of a shock wave generated from pulse combustion. Chandran et al teaches drying the slurry using a pulse combustion device (Abstract, C2/L31-33). Chandran et al. further teaches a frequency in a range of from about 50 Hz to about 500 Hz (C3/L12-19). Jeffs and Chandran et al. are analogous art concerned with the same field of endeavor, namely spray-drying rubber latexes. It would have been obvious to one of ordinary skill in the art at the time of invention to use the pulse-shock wave dryer of Chandran in the method of Jeffs, and the motivation to do so would have been to accelerate the drying speed of the droplets as evidenced by Takana et al. [0094] .

Regarding claim 16, Jeffs discloses a method further comprising mixing, into at least one natural rubber latex and the aqueous slurry of carbon black, the water-soluble polymer, and then agitating and mixing the latex and carbon black slurry (C5/L5-21).

Regarding claim 20, Jeffs does not disclose a method wherein a frequency of the pulse combustion is 50 to 1200 Hz. Additionally, Chandran et al. teaches a frequency in a range of from about 50 Hz to about 500 Hz (C3/L12-19). It would have been obvious to one of ordinary

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skill in the art at the time of invention to use the frequency of Chandran et al. in the method of Jeffs, and the motivation to do would have been as Chandran et al. suggests, to create a pulsating velocity flow field in the heating process of drying (C3/L66-C4/L6).

Regarding claim 21, Jeffs discloses a method wherein the mixture further contains metal oxides (i.e. "silica", "titanium dioxide", "silicates of aluminum and calcium") (C4/L22-51).

Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeffs (US 5028482) in view of Chandran et al. (US 5,842,289) as applied to claim 15 above, in further view of Horie et al. (JP 09279184 A, see machine translation for citation) and Takana et al. (EP 1306424 A1).

Regarding claims 17 and 18, modified Jeffs discloses the method as shown above in claim 15. Jeffs further discloses water-soluble dispersing agents (C5/L27-37).

However, modified Jeffs does not disclose a method wherein the water soluble polymer is polyvinyl alcohol (PVA), a water-soluble cellulose derivative or a salt thereof. Horie et al. teaches carboxymethylcellulose sodium salts with the degree of etherification of 1.0 or more (compared to 0.5 to 1.6 as required by said claim) [0006]. Modified Jeffs and Horie et al. are analogous art concerned with same technical difficulty, namely dispersing agents. It would have been obvious to one of ordinary skill in the art at the time of invention to use the water-soluble cellulose derivation with the degree of etherification of 1.0 or more of Horie et al. in the method of modified Jeffs, and the motivation to do so would have been as Horie et al. suggests to use a dispersing agent non-reactive to alkali metal salts, which improves flowability of the polymer composition without the need for an additional surface active agent (Claim 1,[0010]).

Regarding claim 19, Jeffs does not disclose a method wherein a viscosity at 25°C of the mixture before drying is 3000 mPa·s or less. Additionally, Tanaka discloses a method for producing a polymer composition wherein the polymer composition mixture before drying has a viscosity at 2000 mPa·s (as compared to 25°C of 3000 mPa·s or less as required by said claim) [0150]. It would have been obvious to one of ordinary skill in the art at the time of invention to use the viscosity of Tanaka et al. in the process of modified Jeffs, and the motivation to do so would have been as Tanaka et al. suggests, to have excellent handleability of the composition and to suppress the bleed-out of the nonionic surfactant during storage [150].

Claims 23, 24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeffs (US 5028482) in view of Chandran et al. (US 5,842,289) and Mabry et al. (US 6,040,364) and Takana et al. (EP 1306424 A1).

Regarding claim 23, Jeffs discloses a method for producing a natural rubber/carbon black master batch by mixing a natural rubber latex and an aqueous slurry of carbon black, followed by drying, and comprising spraying and drying the mixture.

However, Jeffs does not disclose spraying and drying the mixture thus obtained under an atmosphere of a shock wave generated from pulse combustion. Chandran et al teaches drying the slurry using a pulse combustion device (Abstract, C2/L31-33). Chandran et al. further teaches a frequency in a range of from about 50 Hz to about 500 Hz (C3/L12-19). Jeffs and Chandran et al. are analogous art concerned with the same field of endeavor, namely spray-drying rubber latexes. It would have been obvious to one of ordinary skill in the art at the time of invention to use the pulse-shock wave dryer of Chandran in the method of Jeffs, and the

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motivation to do so would have been to accelerate the drying speed of the droplets as evidenced by Takana et al. [0094] .

Regarding claim(s) 24, Jeff does not disclose a method wherein a time after combining the starting material feed lines to a single line, then spraying the mixture under an atmosphere of a shock wave generated from pulse combustion is 0.1 to 10 seconds. As the degradation of the elastomer, such as natural rubbers is variable that can be modified by adjusting said time as evidenced by Marbury et al. (C1/L40-48), the precise time would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, time ,and the motivation to do so would have been to obtain desired performance of the elastomer, such as natural rubbers (*In re Boesch*, 617 F .2d. 272,205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). See MPEP 2144.05.

Regarding claim 25, Jeffs does not disclose a method wherein a viscosity at 25°C of the mixture before drying is 3000 mPa·s or less. As the handleability during production is variable that can be modified by adjusting said viscosity as evidenced by Takana et al. [150], the precise viscosity would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, viscosity ,and the motivation to do so would have been to obtain desired handleability during production (*In re*

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Boesch, 617 F.2d. 272,205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). See MPEP 2144.05.

Regarding claim 26, Jeffs does not disclose a method wherein a frequency of the pulse combustion is 50 to 1200 Hz. Additionally, Chandran et al. teaches a frequency in a range of from about 50 Hz to about 500 Hz (C3/L12-19). It would have been obvious to one of ordinary skill in the art at the time of invention to use the temperature of Chandran et al., in the method of Takana et al., and the motivation to do so would have been as Chandran et al. suggests, to create a pulsating velocity flow field in the heating process for drying (C3/L66-C4/L6).

Furthermore, Jeffs does not disclose a temperature of a drying chamber for spraying the latex is 140°C or less. As the degradation of the elastomer material is variable that can be modified by adjusting said temperature as evidenced by Jeffs (C6/L23-27), the precise temperature would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, temperature, and the motivation to do so would have been to obtain desired stability of the elastomer (*In re Boesch*, 617 F.2d. 272,205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). See MPEP 2144.05.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, and 6, provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 4, 5, and 6 of copending Application No. 10/588102.

Although the conflicting claims are not identical, they are not patentably distinct from each other because Application ‘102 recites a method for producing a rubber/short fiber master batch comprising stirring and mixing an aqueous dispersion of short fibers and a rubber latex, then spraying the mixture for drying under an atmosphere of a shock wave generated from by pulse combustion (claim 4). Application ‘102 also recites a method wherein a viscosity of said mixture at 25°C before drying is not more than 2000 mP·s (claim 5). Application ‘102 further

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recites a method wherein a frequency of the pulse combustion is 50 to 1200 Hz and a temperature of a drying chamber for spraying the mixture is not more than 140°C (claim 6).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE M. BUIE whose telephone number is (571)270-3879. The examiner can normally be reached on Monday-Thursday with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571)272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo, Ph.D./
Supervisory Patent Examiner, Art Unit 1796
2-Aug-08

/N. M. B./
Examiner, Art Unit 1796
7/23/2008

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